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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,581	04/02/2007	Atsushi Hashimoto	062483	1768

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EXAMINER

BECCIA, CHRISTOPHER J

ART UNIT	PAPER NUMBER
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3775

NOTIFICATION DATE	DELIVERY MODE
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03/04/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentmail@whda.com

Office Action Summary	Application No. 10/582,581	Applicant(s) HASHIMOTO ET AL.	
	Examiner CHRISTOPHER BECCIA	Art Unit 3775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/12/06 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, filed October 13, 2009, with respect to the rejection(s) of claim(s) 1-6 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made. Please see rejection below which relies on references Farris and Michael to address the deficiencies of the prior rejection, and the amended claims, including multiple wires, and a wire configured to cut bone.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Examiner states that in order to provide a looping wire saw capable of cutting bone, a tensioning instrument such as Kilpela or Farris, meets the limitations of wrapping a wire around bone, and that the induced tension when combined with a cutting wire such as Michael, is capable of cutting bone.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-6** are rejected under 35 U.S.C. 103(a) as being unpatentable over in view of U.S. Patent No. 6,364,885 to *Kilpela et al.* in view of U.S. Patent No. 6,077,268 to *Farris et al.* in further view of U.S. Patent No. 4,709,699 in view of *Michael et al.*

As to **Claims 1-6**, *Kilpela* discloses a device for pulling a wire wrapped around a bone (Seen in Figs. 1-4), comprising;

a cylindrical main section (4) having a first longitudinal end (near 36 in Fig. 6) and a second longitudinal end (Near 11 in Fig. 6),

a first supporting wire (46) having a first end portion and a second end portion, said first end portion of said first supporting wire is connected to said first longitudinal end of the cylindrical main section (36, See Fig. 5)),

a wire (50) one end having a first end portion and a second end portion, the first end portion of the cutting wire being fastened to the fastener (Loop 50, and see Fig. 9) the wire forming a circularly curved portion (50),

a pulling section (12) which pulls the second end portion of the cutting wire to reduce a diameter of the circularly curved portion (Col. 4, Lines 16-32),

and an adjusting section (4) which adjusts a pulling force applied to the second end portion of the second supporting wire (Col. 3, Lines 30-43).

As to **Claim 2**, *Kilpela* discloses a bone cutter wherein the pulling section is configured such that the second end portion of the cutting wire is pulled by a screw jack (4b) including a first threaded rod (2) and a first nut (6) installed in the cylindrical main section (4) (Col. 4, Lines 25-50).

As to **Claim 3**, *Kilpela* discloses a bone cutter wherein the pulling section includes a cylindrical part (4, Fig. 2) having an upper end portion and a lower end portion, the second end portion of the wire being fixed at the upper end portion (1) of the cylindrical part (at 2a, Col. 2, Lines 54-60) and an upper portion of the first nut being in contact with the lower end portion of the cylindrical part.

As to **Claim 4**, *Kilpela* discloses a bone cutter wherein the cylindrical part has a slit (14a in Fig. 10) extending in an axial direction thereof and wherein a rotation preventing part fixed to a first threaded rod through the slit is provided on the cylindrical part (Col. 3, Lines 30-43 and Col. 4, Lines 33-50).

As to **Claim 5**, *Kilpela* discloses a bone cutter wherein the pulling section further includes: a fixing section (12) which fixes the circularly curved portion of the cutting wire at a position where the circularly curved portion comes in contact with a bone (Col. 4, Lines 16-25), the fixing section including a fixture to which the second end portion of the cutting wire is fixed (Figs. 6 and 7), a third threaded rod which supports the fixture (11a), and a third nut which fixes a position of the third threaded rod (13a) and (Col. 3, Lines 4-15).

As to **Claim 6**, *Kilpela* discloses a bone cutter wherein the adjusting section that adjusts the pulling force applied to the first end portion of the second supporting wire

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includes a second threaded rod and a second nut installed in the cylindrical main section (2 and 2b in Fig. 2 and Col. 3, Lines 15-43).

Kilpela discloses the claimed invention except for wherein the device is configured for cutting bone, and the wire is a cutting wire; a second supporting wire having a first end portion and a second end portion, said first end, an end portion of the second supporting wire being connected to the second longitudinal end of the cylindrical main section; and a fastener, the second end portion of the first supporting wire and the second end portion of the second supporting wire being fastened to said fastener.

Farris discloses a device (17) having a second supporting wire (10 in Fig. 1) having a first end portion (13) and a second end portion (16), said first end, an end portion of the second supporting wire being connected to the second longitudinal end of the cylindrical main section (Near 19A, See Fig. 1); and a fastener (28, Fig. 2), the second end portion of the first supporting wire and the second end portion of the second supporting wire being fastened to said fastener (Col. 3, Lines 37-51) in order to provide a device cable of providing additional cables able to be wrapped around a bone, secured via a fastener, and capable of being pulled and applying tension to the bone (Col. 1, Lines 46-67).

Michael discloses a device (11) wherein the device is configured for cutting bone (Col. 3, Lines 15-23), the wire is a cutting wire (15, Col. 3, :Lines 24-40) formed into a loop (12, Fig. 2) in order to provide a wire saw capable of producing a smooth cut, have a maximum amount of material removal per stroke, and have good tension, flexion, and cutting properties (Col. 2, Lines 29-33).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the wire tensioning system of *Kilpela* with the additional wire and fastener modifications of *Farris* and the cutting components of *Michael* in order to provide a device cable of providing additional cables able to be wrapped around a bone, secured via a fastener, and capable of being pulled and applying tension to the bone; and a wire saw capable of producing a smooth cut, have a maximum amount of material removal per stroke, and have good tension, flexion, and cutting properties.

Conclusion

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER BECCIA whose telephone number is (571)270-7391. The examiner can normally be reached on M-F 7:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Barrett can be reached on 571-272-4746. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHRISTOPHER BECCIA/
Examiner, Art Unit 3775

/Thomas C. Barrett/
Supervisory Patent Examiner, Art
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